ATIS-0300118

ATIS Standard on -

Next Generation Interconnection Interoperability Forum (NGIIF) NGN Reference Document

NGN Interconnection

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Published by

Alliance for Telecommunications Industry Solutions

1200 G Street, NW, Suite 500

Washington, DC 20005

ATIS-03000118

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Alliance for Telecommunications Industry Solutions

Approved March 2022

Abstract

This document focuses on providing information for connecting service provider (SP) networks using next generation connections, including internetwork routing.

Foreword

The Alliance for Telecommunications Industry Solutions (ATIS) serves the public through improved understanding between carriers, customers, and manufacturers. The Next Generation Interconnection Interoperability Forum (NGIIF) addresses next generation network interconnection and interoperability topics associated with emerging technologies. Specifically, it develops operational procedures that involve the network aspects of architecture, disaster preparedness, installation, maintenance, management, reliability, routing, security, and testing between network operators. In addition, NGIIF addresses issues that impact the interconnection of existing and next generation networks and facilitate the transition to emerging technologies.

The mandatory requirements are designated by the word *shall* and *must,* and recommendations by the word *should*. Where both a mandatory requirement and a recommendation are specified for the same criterion, the recommendation represents a goal currently identifiable as having distinct compatibility or performance advantages. The word *may* denotes an optional capability that could augment the standard. The standard is fully functional without the incorporation of this optional capability.

Suggestions for improvement of this document are welcome. They should be sent to the Alliance for Telecommunications Industry Solutions, NGIIF, 1200 G Street NW, Suite 500, Washington, DC 20005.

At the time of consensus on this document, NGIIF, which was responsible for its development, had the following leadership:

S. Halko, NGIIF Co-Chair (Telnyx)

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1.1 Scope

Next generation technology [i.e., Internet Protocol (IP)] reflects the ongoing evolution of the Public Switched Telephone Network (PSTN). Historically, the PSTN has been based on Time Division Multiplexing (TDM) equipment and processes as the backbone of the network. As the industry transitions, IP technology provides an alternative means for voice and data transmission and the potential for many new services and processes (i.e. TN authentication frameworks). However, the transition, and ultimately IP technology, presents a need to address its impact on telephony functions and processes that have been developed over time in order for calls to be reliably completed. These are related to such functions as network reliability, operational efficiencies, intercompany interconnectivity, network/call troubleshooting, and many other areas that permit networks to interwork with each other consistently and effectively.

Within the wide scope of IP related impacts, this document focuses on providing information for connecting service provider (SP) networks using next generation connections, including internetwork routing.

As industry standards, best practices, and regulatory decisions relative to IP become further defined, this document will be modified as applicable.

1.2 Purpose

This document serves as a guide to provide an industry understanding of the operational needs for next generation interconnection and interoperability.

1.3 Application

The intended use of this document is for assistance in deployment of next generation interconnection by SPs but should not replace technical discussions and/or agreements between interconnecting parties. This document is expected to be updated as pertinent regulatory decisions are made and as industry standards evolve; therefore, the reader should ensure the latest version of this document is being referenced. This document does not replace industry standards or regulatory decisions recently made that may not have yet been reflected in this document.

2 Informative References

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.